Nutri Blend
BIOSOLIDS LAND APPLICATION

MAP LEGEND

Buffer Area


Property Line (100ft Buffer)

North Symbol


Surface Water


Field Boundary

rck
Rock Outcrop (25ft Buffer)


Severe Slope/Erosion

Sink Hole (100ft Buffer)

Intermittent Stream (100ft Buffer)


Occupied Dwelling/Structures/Well (200ft Buffer)

Frequently Flooded Area/Drainage Way/Wet Spot

Public Roadway (10ft Buffer)

Road Map Hauling Route


OSR/Public Access Sites (400ft Buffer)

Public Water Supply/Additional Water Well (100ft Buffer)

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 9/21/15 between Woodfin & Ann Ligon referred to here as "Landowner", and Nutri-Blend, Inc, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:
The Landowner is the owner of record of the real property located in Cumberland, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
106 A 7	106 A 8	106 A 9	

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:
☑ The Landowner is the sole owner of the properties identified herein.
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☐ Yes ☐ No	☐ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☐ No

x _____ x _____ 918 Rivers Rd Farmville VA 23901

Landowner – Printed Name, Title: Woodfin Ligon, Ann Ligon
Signature
Mailing Address

Permittee:
Nutri-Blend, Inc., the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Bill Burnett _____ Bill Burnett
Permittee – Authorized Representative Printed Name
Signature

Nutri-Blend, Inc.
PO Box 38060
Henrico, VA 23231

Permittee: Nutri-Blend, Inc **County or City:** Cumberland

Landowner: Woodfin + Ann Ligon

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.

2. Public Access
   a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.

3. Crop Restrictions:
   a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
   b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
   c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
   d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
   e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).

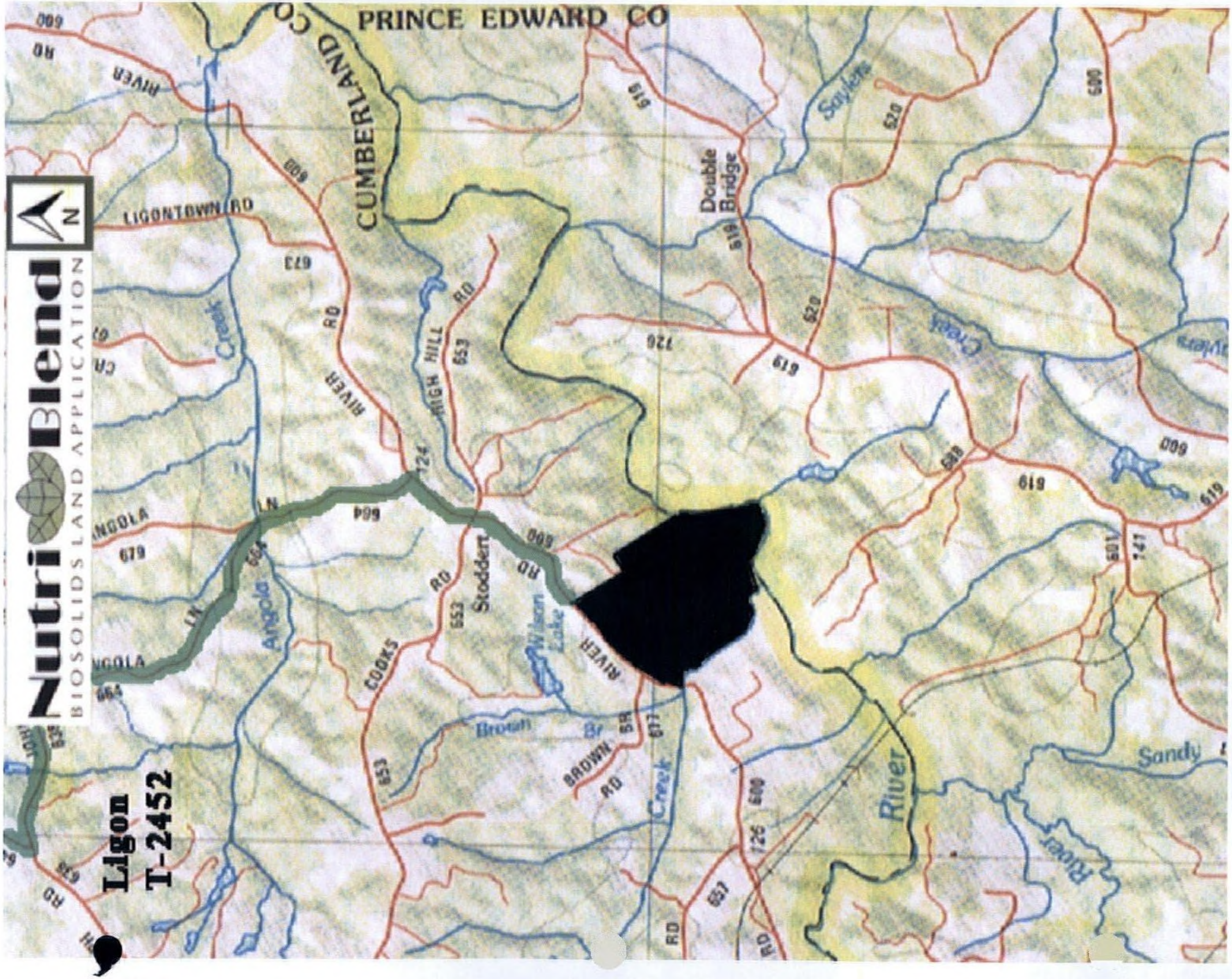
4. Livestock Access Restrictions:
   Following biosolids application to pasture or hayland sites:
   a. Meat producing livestock shall not be grazed for 30 days,
   b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
   c. Other animals shall be restricted from grazing for 30 days;

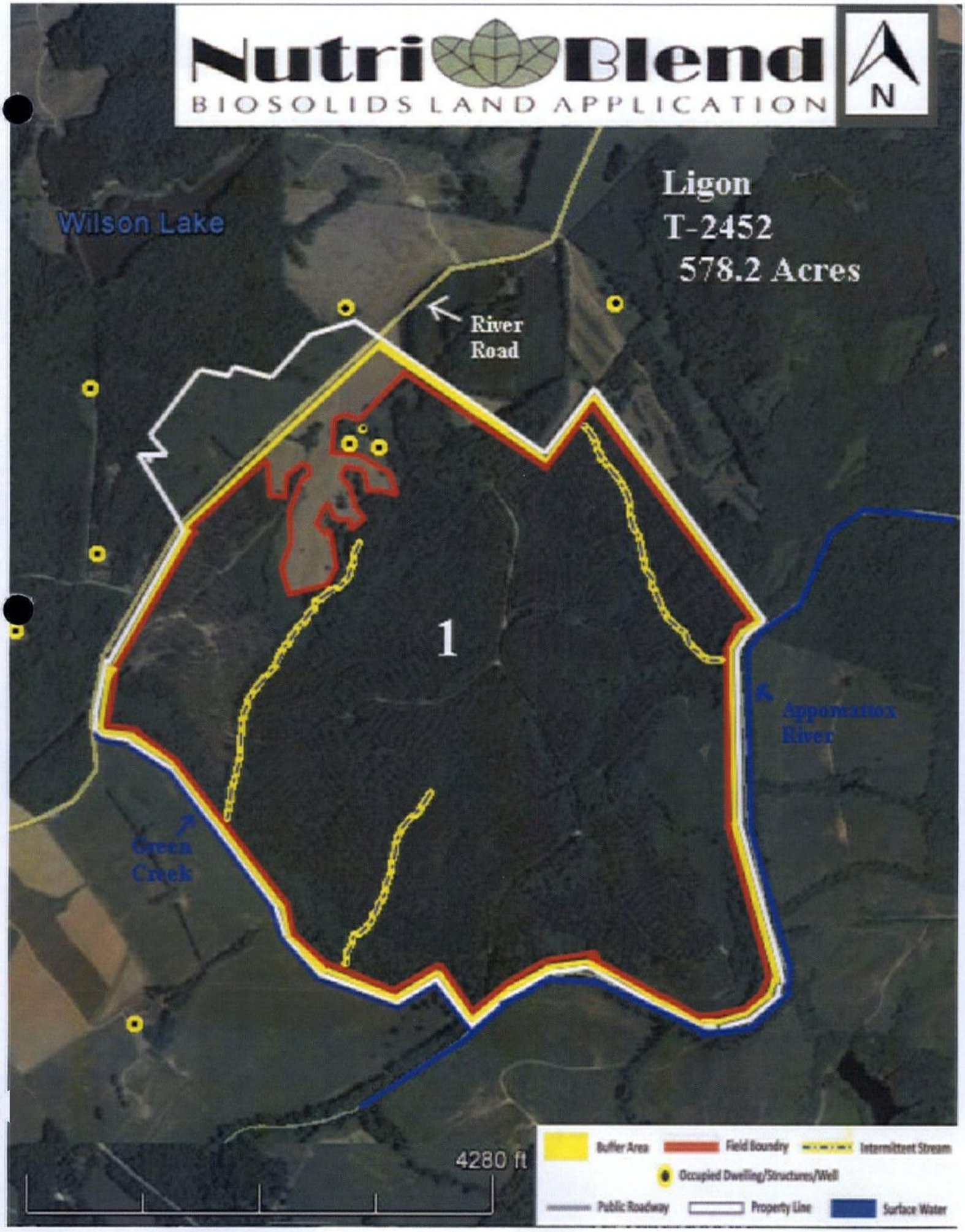
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;

6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

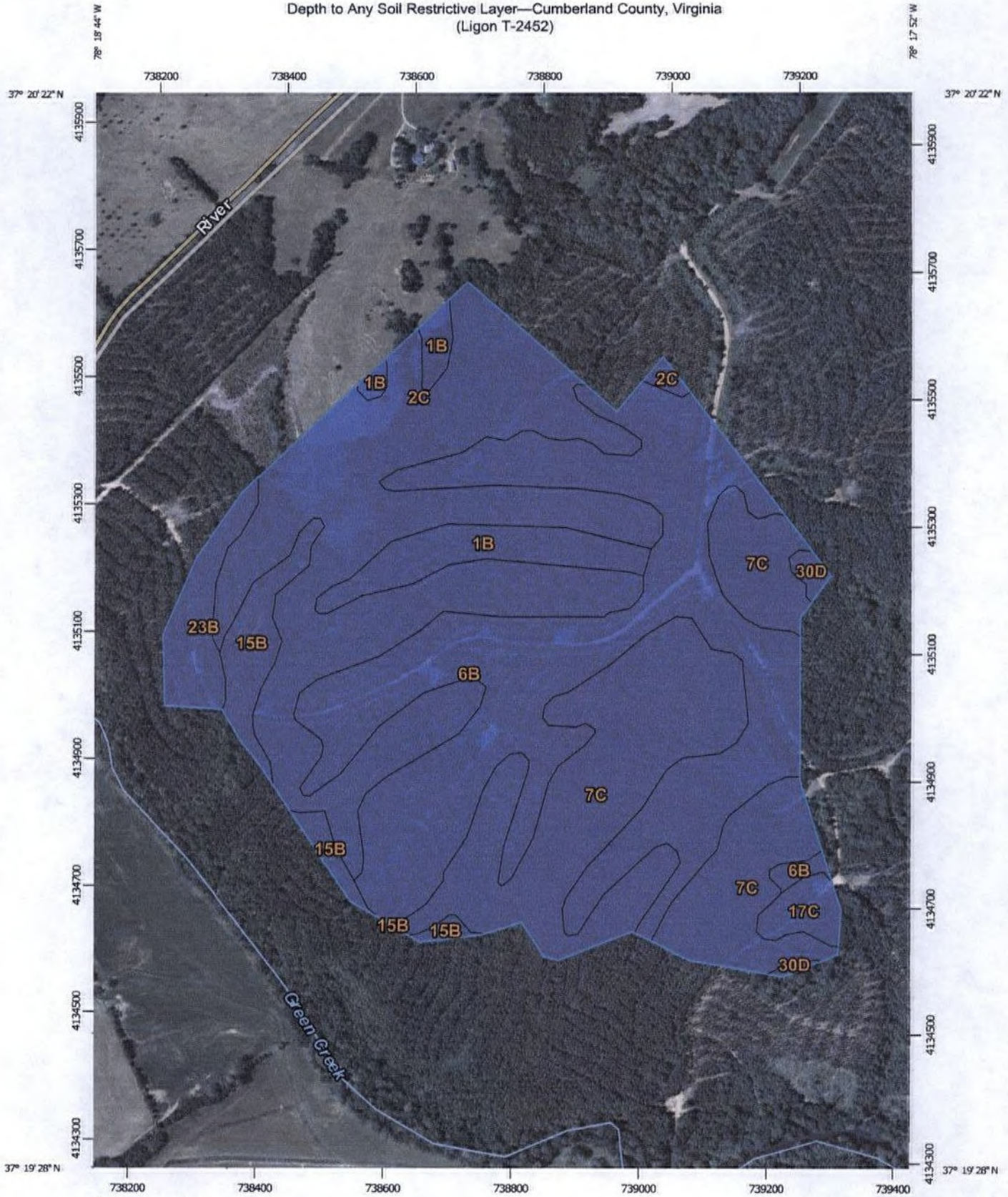
Landowner's Signature 9/21/2015 Date

Landowner's Signature 9/21/2015 Date


PRINCE EDWARD CO
CUMBERLAND
NutriBlend
BIOSOLIDS LAND APPLICATION
N
Ligon
T-2452
LIGONTOWN RD
Double Bridge
Saylers
Creek
HIGH HILL RD
RIVER RD
COOKS RD
Stoddert
Wilson Lake
Angola
Brown Br
BROWN RD
Creek
River
Sandy
619
620
653
600
726
724
664
679
677
126
657


Nutri Blend
BIOSOLIDS LAND APPLICATION
N
Ligon
T-2452
578.2 Acres
Wilson Lake
River Road
1
Appomattox River
Green Creek
4280 ft
Buffer Area
Field Boundry
Intermittent Stream
Occupied Dwelling/Structures/Well
Public Roadway
Property Line
Surface Water

Depth to Any Soil Restrictive Layer—Cumberland County, Virginia
(Ligon T-2452)



Map Scale: 1:8,240 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate *calculations of distance or area are required.*

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County, Virginia
Survey Area Data: Version 11, Dec 11, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 10, 2010—Jul 4, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Cumberland County, Virginia (VA049)				
Map unit symbol	**Map unit name**	**Rating (centimeters)**	**Acres in AOI**	**Percent of AOI**
1B	Appling sandy loam, 2 to 7 percent slopes	>200	8.8	4.6%
2C	Appling-Helena complex, 7 to 15 percent slopes	>200	57.2	29.8%
6B	Cecil sandy loam, 2 to 7 percent slopes	>200	63.8	33.2%
7C	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	>200	46.6	24.2%
15B	Dogue fine sandy loam, 2 to 7 percent slopes, rarely flooded	>200	6.7	3.5%
17C	Enon-Helena complex, 7 to 15 percent slopes, very stony	>200	2.6	1.3%
23B	Mattaponi-Appling complex, 2 to 7 percent slopes	>200	5.4	2.8%
30D	Pacolet-Wateree complex, 15 to 25 percent slopes	>200	1.0	0.5%
Totals for Area of Interest			**192.1**	**100.0%**

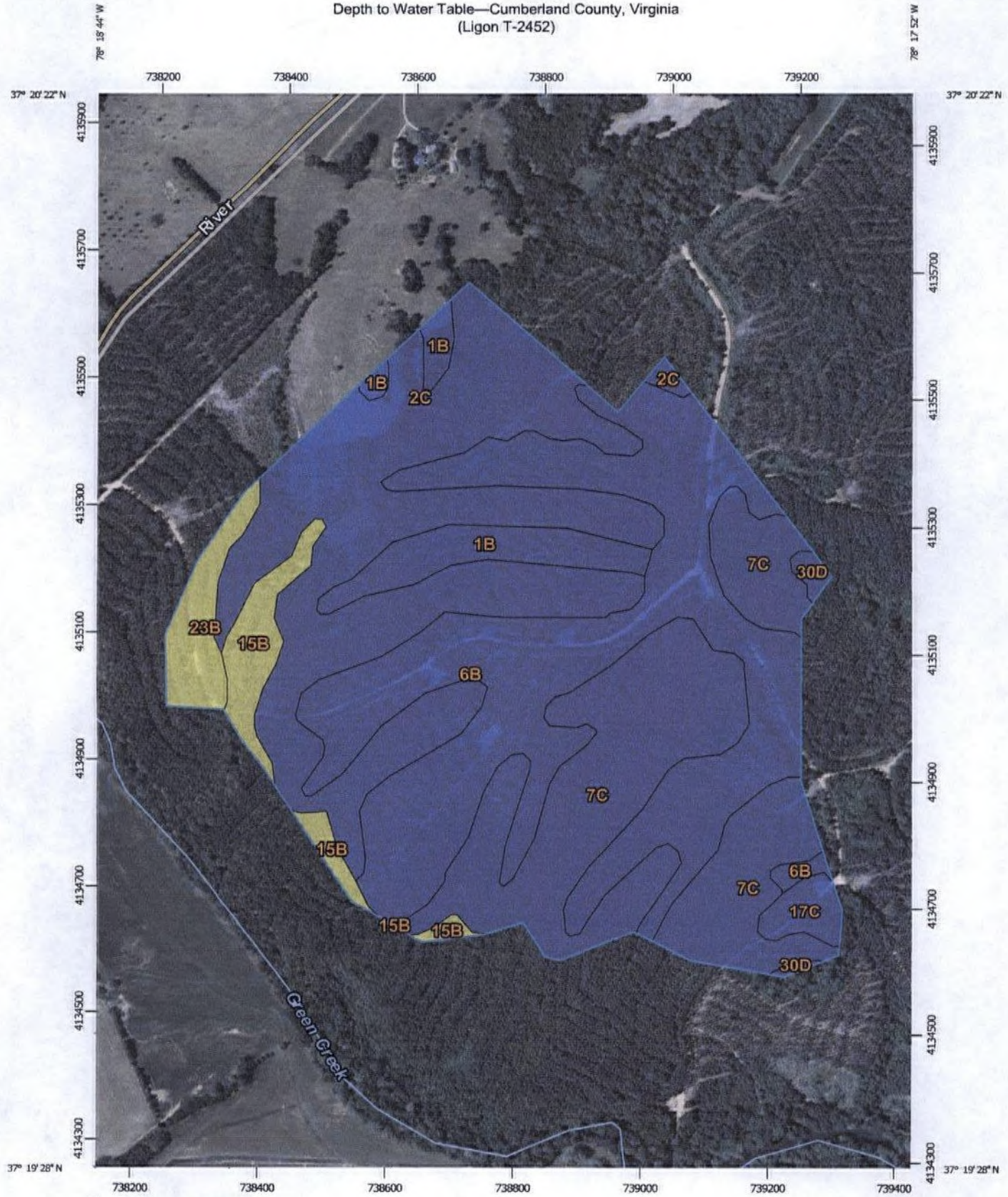
Description

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "> 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Depth to Water Table—Cumberland County, Virginia
(Ligon T-2452)



Map Scale: 1:8,240 if printed on A portrait (8.5" x 11") sheet.

N

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Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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- Aerial Photography

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30D	Pacolet-Wateree complex, 15 to 25 percent slopes	>200	1.0	0.5%
Totals for Area of Interest			**192.1**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified


Nutri Blend
BIOSOLIDS LAND APPLICATION
N
Ligon
T-2452
River
2C
7C
2C
1B
2C
2C
6B
30D
2C
23B
40A
30E
W
1B
7C
30D
Be
8A
40A
W
40A
7C
17C
2C
15B
30D
15B
30D
W
8A
W
W
8A
W
40A
Appomattox River
Map scale: 1:15,400 if printed on A portrait (8.5" x 11") sheet.
Meters
200
400
800
1200
Feet
0
500
1000
2000
3000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84


NutriBlend
BIOSOLIDS LAND APPLICATION
N
Ligon
T2452
Wilson Lake
Brown Branch
Creek
APPOM
dert
600
677
421
401
305
450
400
350
300
330

Ligon FARM
Tract 2452
Field Data Sheet

Field	Total	Field Coordinates	
	Acres	Latitude	Longitude
1	578.2	37.332882	-78.300174
1	578.2		

Water Shed Code JA16

Site Type Forest

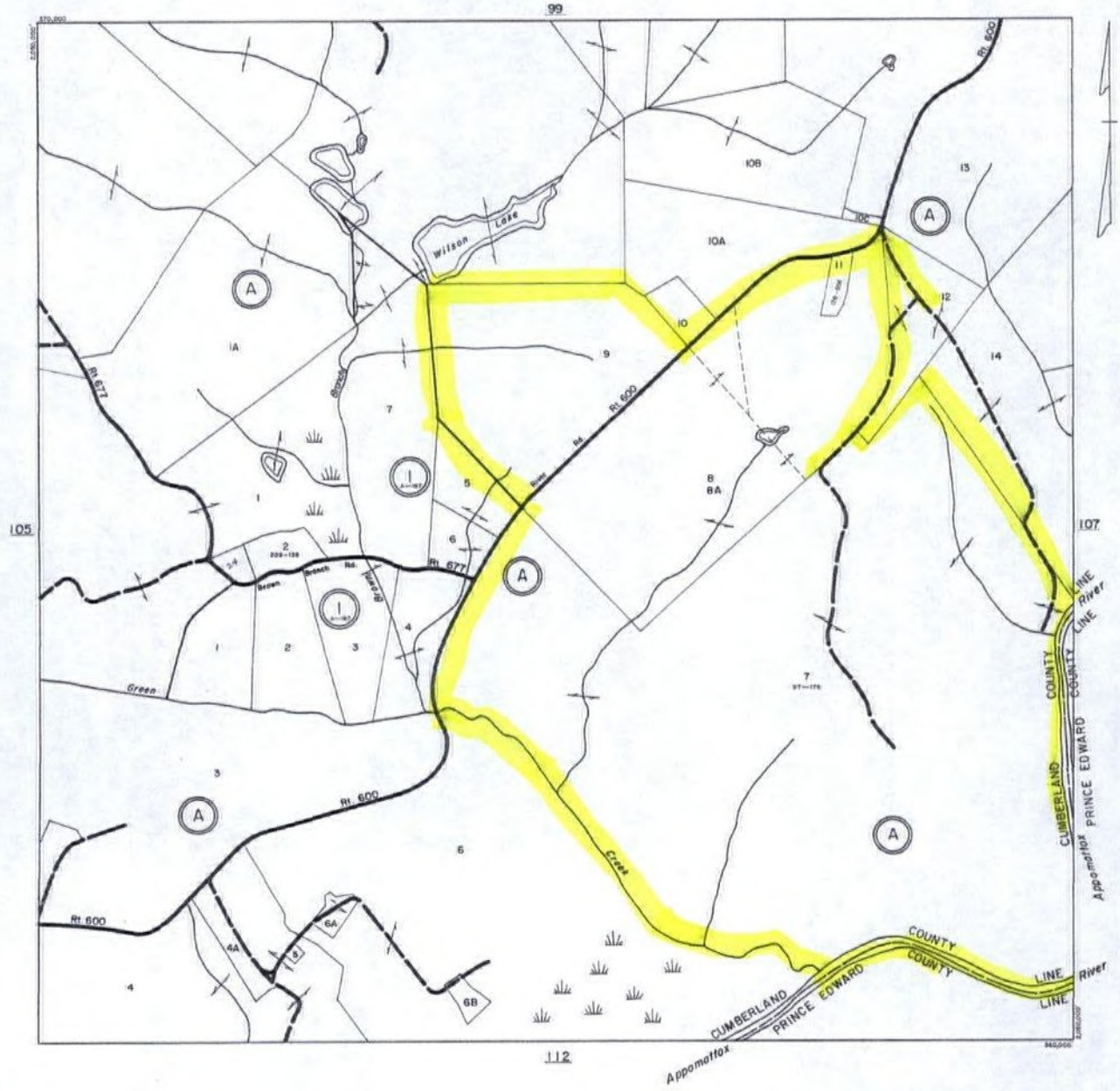
Tax ID 106-A-7,8,9

Agricultural Practice: See Nutrient Management Plan for Yearly crop rotation

USDA Soil Map depth to bedrock & water table when applicable in Nutrient Management Pla

Owner Woodfin and Ann Ligon

CUMBERLAND COUNTY



SCALE IN FEET

500 0 500 1000 1500 2000

RANDOLPH DISTRICT

SECTION 106

REVISED: 12/31/06

CUMBERLAND COUNTY

SCALE IN FEET

500 0 500 1000 1500 2000

250 0 200 400 600 800

RANDOLPH DISTRICT

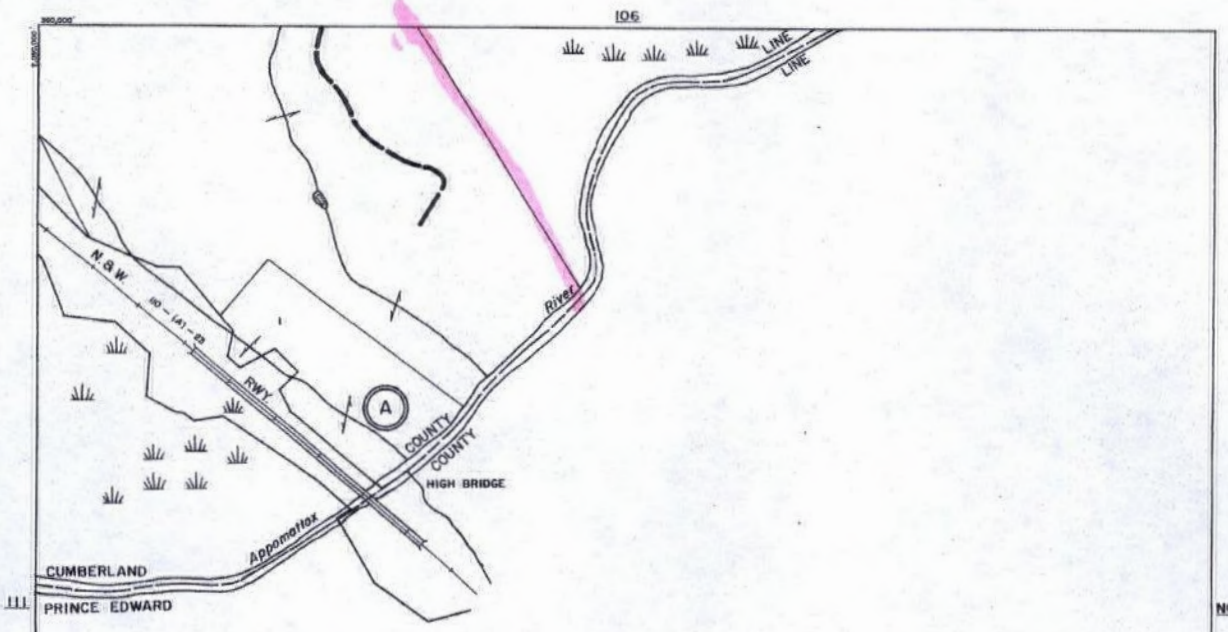
SECTION 107

REVISED: 12/31/06

CUMBERLAND COUNTY

WOODFIN & ANN LIGON

106-A-7,8,9



SCALE IN FEET

REVISED: 12/31/06

RANDOLPH DISTRICT

SECTION 112